Table 3.—Maximum free-air wind velocities (M. P. S.) for different sections of the United States, based on pilot-balloon observations during November 1942

Section	Surface to 2,500 meters (m. s. l.)					Between 2,500 and 5,000 meters (m. s. l.)					Above 5,000 meters (m. s. l.)				
	Maximum ve- locity	Direction	Altitude (m.)	Date	Station	Maximum ve-	Direction	Altitude (m.) m. s. l.	Date	Station	Maximum ve- locity	Direction	Altitude (m.)	Date	Station
Northeast 1. East-Central 1. Southeast 3. North-Central 4. Central 4. South-Central 6. Northwest 7. West-Central 8. Southwest 8.	43. 2 36. 0 30. 2 44. 4 38. 3 40. 8 35. 0 41. 9 35. 8		1, 240 2, 430	28 13 24 12 16 30 2 17 30	Boston, Mass Washington, D. C Charleston, S. C Duluth, Minn Indianapolis, Ind Abilene, Tex Seattle, Wash Cheyenne, Wyo El Paso, Tex	58. 0 48. 0 34. 4 55. 0 43. 2 35. 3 50. 4 58. 0 40. 9	NW	4, 530 4, 610	28 27 27 12 12 16 29 3 17	Boston, Mass Knoxville, Tenn Birmingham, Ala. Fargo, N. Dak Joliet, Ill Amarillo, Tex. Ellensburg, Wash. Ely, Nev. Albuquerque, N. Mex.	63. 0 63. 0 65. 0 56. 0 70. 0	NNW WSW W W WSW NW NNW	11, 410 5, 770 10, 200	15 11 13 8 17 10 30 25 29 9	Carlbou, Maine. Greensboro, N. C. Tampa, Fla. Detroit, Mich. Omaha, Nebr. St. Louis, Mo. Oklahoms City, Okla Pocatello, Idaho. Pueblo, Colo. Albuquerque, N. Mex

1 Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania and Northern Ohio.

1 Delaware, Maryland, Virginia, West Virginia, Southern Ohio, Kentucky, Eastern Tennessee, and North Carolina.

2 South Carolina, Georgia, Florida, and Alabama.

4 Michigan, Wisconsin, Minnesota, North Dakota, and South Dakota.

5 Indiana, Illinois, Iowa, Nebraska, Kansas, and Missouri.

## RIVER STAGES AND FLOODS

## BY: BENNETT SWENSON

Precipitation during November was abnormally heavy in a large northwestern area, including northern California, and also from the central Mississippi Valley and Lake Region eastward. The month was abnormally dry in the South, especially the Southwest where very little precipitation occurred; New Mexico had only 3 percent of normal rainfall for the month.

The only flooding of consequence during the month was in the Willamette River Basin in Oregon. There was considerable flooding of lowlands and record or near record stages were reached in some cases.

Flooding in the Willamette Basin occurred at three distinct periods near the end of the month, namely, November 23-25; 27-28; and 29-30. In the first period, stages were generally higher in the lower basin while in the last period the highest stages were in the upper basin.

The Ohio River was at a low stage at the beginning of the month but several rises occurred thereafter and at the end of the month moderate stages existed. In the Mississippi River, seasonable moderate stages prevailed, the highest stages being reached near the end of the

The extreme upper Mississippi River was reported closed to navigation on November 26, and all pools frozen over by December 2.

- 6 Mississippi, Arkansas, Louisiana, Oklahoma, Texas (except El Paso), and western
- MISSISSIPPA, A. A. A. Tennessee.
   Montana, Idaho, Washington, and Oregon.
   Montana, Idaho, Washington, and Oregon.
   Wyoming, Colorado, Utah, northern Nevada, and northern California.
   Southern California, southern Nevada, Arizona, New Mexico, and extreme west

## FLOOD-STAGE REPORT FOR NOVEMBER 1942

River and station	Flood	Above stages-		Crest		
161VOI BIIQ SUBSIOII	stage	From-	То—	Stage	Date	
Mississippi system						
Upper Mississippi Basin Illinois: Beardstown, Ill Mississippi: Louisiana, Mo	Feet 14 12	29 22	30 23	Feet 14. 2 12. 12. 1	29-30 22 23	
West Fork White: Edwardsport, Ind  Arkansas Basin	12	$\left\{ \begin{array}{cc} 21 \\ 24 \end{array} \right\}$	21 26	12. 7 12. 7	21 25	
Black: Black Rock, Ark	14	23	24	14.6	23	
St. Francis: Fisk, Mo	20	26	26	20.3	26	
WEST GULF OF MEXICO DRAINAGE East Fork of Trinity: Rockwall (near), Tex	10	6	8	10. 6		
PACIFIC SLOPE DRAINAGE Columbia Basin Middle Fork of Willamette: Eula, Oreg Coast Fork of Williamette: Saginaw, Oreg.	13 9	{ 27 29 29 29 23	27 30 29 24	13. 4 17. 0 9. 5 15. 9	27 29 29 23	
McKenzie: Leaburg, Oreg	12	27 29	(1)	17. 8 19. 4	27 29	
Santiam: Jefferson, Oreg	13	23 26 29	25 29 (1)	20.8 19.8 19.6	24 27 30	
Luckiamute: Suver, Oreg	25	24 27	(1)	28.4 28.5	24 27	
South Yamhill: Willamina, Oreg	8	23 26	23 26	10.3 9.2	23 26	
Long Tom: Monroe, Oreg	10	24 27	25 28	11.5 10.4	24 28	
Willamette: Eugene, Oreg	12	27 30	27 30	12.0 14.6	27 30	
Harrisburg, Oreg	10	24	(1)	13. 8 15. 7	24-25 30	
Albany, Oreg	20	29 30 26	(1)29	20. 3 21. 8 13. 0	29 30 29–30	

1 Continued into following month.